

AMENDMENTS TO THE CLAIMS

1. (Currently Amended) A product design support system that supports a user in designing a product, said system comprising:

storage means for storing information about products; and

processing means for receiving a predetermined specification of a product to be designed and for selectively extracting said information about said products from said storage means based on compatibility with said specification of said product to be designed ~~and has a structure (1, 2) which collectively manages information on a product to facilitate designing of said product or extracts information for making said product compatible with a predetermined specification.~~

2. (Currently Amended) The product design support system that supports a user in designing a product according to claim 1, ~~comprising:~~

said storage means ~~[[(2)]]~~ including:

parts-information storage means ~~[[(22)]]~~ which stores parts information on parts constituting a product,

parts-image-information storage means ~~[[(23)]]~~ which stores parts image information on said parts stored in said parts-information storage means ~~[[(22)]]~~,

product-information storage means ~~[[(24)]]~~ which stores product information on ~~said product~~ products, said products formed by said parts stored in said parts-information storage means ~~[[(22)]]~~, and

product-image-information storage means ~~[[(25)]]~~ which stores product image information on ~~said product~~ products stored in said product-information storage means ~~[[(24)]]~~; and

said processing means including:

specification acquisition means ~~[[(1)]]~~ which acquires specification information designating ~~[[a]]~~ said specification of ~~[[a]]~~ said product to be designed~~[[;]]~~.

compatible-product-information extraction means ~~[[(1)]]~~ which extracts from said storage means ~~[[(2)]]~~ said information on ~~a product~~ said products compatible with said specification designated by said specification information acquired by said specification acquisition means ~~[[(1)]]~~ and/or information on parts to be constituting elements of ~~said product~~ products compatible with said specification~~[[;]]~~, and

information transmission means [(1)] which transmits information extracted by said compatible-product-information extraction means [(1)] to a user terminal [(4)] of said user, ~~whereby~~ wherein said system collectively manages information on [(a)] said product to be designed ~~is collectively managed~~ to facilitate designing of said product.

3. (Currently Amended) The product design support system according to claim 2, wherein said compatible-product-information extraction means [(1)]

selects product information on ~~a product~~ said products having functions designated by said specification information acquired by said specification acquisition means [(1)], and parts information on parts to be constituting elements of ~~that product~~ said products from said storage means [(2)],

executes simulation to discriminate whether a product which is obtained by replacing constituting elements of said ~~product~~ products indicated by said selected product information is compatible with [(a)] said specification designated by said specification information or not, and

extracts information on ~~a product~~ said products compatible with said specification designated by said specification information and/or information on parts to be constituting elements of said ~~product~~ products compatible with said specification based on results of said simulation.

4. (Currently Amended) The product design support system that supports a user in designing a product according to claim 1, ~~comprising:~~

said storage means [(2)] including:

parts-information storage means [(22)] which stores parts information on parts constituting a product,

parts-image-information storage means [(23)] which stores parts image information on said parts stored in said parts-information storage means [(22)],

product-information storage means [(24)] which stores product information on said ~~product~~ products, said products formed by said parts stored in said parts-information storage means [(22)], and

product-image-information storage means [(25)] which stores product image information on said ~~product~~ products stored in said product-information storage means [(24)]; and

said processing means including:

acquisition means [(1)] which acquires said parts information, said product information, said parts image information, and [(their)] said product image information[(;)], and

update means [(1)] which updates information stored in said storage means [(2)] based on said information acquired by said acquisition means [(1)],

~~whereby wherein said system collectively manages~~ information on [(a)] said product to be designed ~~is collectively managed~~ to facilitate designing of said product.

5. (Currently Amended) The product design support system that supports a user in designing a product according to claim 1, said storage means comprising:

parts-information storage means [(22)] which stores parts information on parts constituting a product;

parts-image-information storage means [(23)] which stores parts image information on said parts stored in said parts-information storage means [(22)];

product-information storage means [(24)] which stores product information on said ~~product~~ products, said products formed by said parts stored in said parts-information storage means [(22)];

product-image-information storage means [(25)] which stores product image information on said ~~product~~ products stored in said product-information storage means [(24)];

restriction information storage means [(26)] which stores information on a design restriction in product designing; and

achievement information storage means [(24)] which stores achievement information on characteristics of said ~~product~~ products stored in said product-information storage means [(24)],

~~whereby wherein said system collectively manages~~ information on [(a)] said product to be designed ~~is collectively managed~~ to facilitate designing of said product.

6. (Currently Amended) The product design support system according to claim 5, wherein said achievement information includes physical property values of a ~~product~~ said products and [(a)] manufacturing [(cost)] costs of said ~~product~~ products.

7. (Currently Amended) The product design support system according to claim 5, said processing means further comprising simulation means [(1)] which simulates characteristics of a

~~designed~~ said product to be designed based on said achievement information stored in said achievement information storage means [(24)].

8. (Currently Amended) The product design support system according to claim 7, said processing means further comprising simulation information transmission means [(1)] which transmits simulation information on results of simulation done by said simulation means [(1)] to a user terminal [(4)] of said user.

9. (Currently Amended) The product design support system that supports a user in designing a product according to claim 1,

said storage means comprising:

parts-information storage means [(22)] which stores parts information on parts constituting a product[;],

parts-image-information storage means [(23)] which stores parts image information on said parts stored in said parts-information storage means [(22);],

product-information storage means [(24)] which stores product information on said ~~product~~ products, said products formed by said parts stored in said parts-information storage means [(22);], and

product-image-information storage means [(25)] which stores product image information on said ~~product~~ products stored in said product-information storage means [(24)]; and

said processing means comprising:

product specifying means [(1)] which allows said user to specify a predetermined product from said products stored in said product-information storage means [(24);], and

product-information providing means [(1)] which transmits at least one of said product information stored in said product-information storage means [(24)] and said product image information stored in said product-image-information storage means [(25)], for [[a]] said product specified by said product specifying means [(1)], to a user terminal [(4)] of said user to provide said user with said transmitted product-related information,

~~whereby~~ wherein said system collectively manages said information on [[a]] said product to be designed ~~is collectively managed~~ to facilitate designing of said product.

10. (Currently Amended) The product design support system according to claim 9, wherein said product image information stored in said product-image-information storage means $[(25)]$ is stored in association with said product information stored in said product-information storage means $[(24)]$ and said parts image information stored in said parts-image-information storage means $[(23)]$.

11. (Currently Amended) The product design support system according to claim 9, wherein said product specifying means $[(1)]$ can specify a plurality of products from said products stored in said product-information storage means $[(24)]$.

12. (Currently Amended) The product design support system according to claim 9, said processing means further comprising:

parts specifying means $[(4, 1)]$ which allows said user to specify a predetermined ~~product~~ part from said parts constituting said product specified by said product specifying means $[(1)]$; and

parts-information providing means $[(1)]$ which transmits at least one of said parts information stored in said parts-information storage means $[(22)]$ and said parts image information stored in said parts-image-information storage means $[(23)]$, for $[(a)]$ said part specified by said parts specifying means $[(4, 1)]$, to said user terminal $[(4)]$ of said user to provide said user with said transmitted parts-related information.

13. (Currently Amended) The product design support system according to claim 9, said storage means further comprising restriction information storage means $[(26)]$ which stores information on a design restriction in product designing.

14. (Currently Amended) The product design support system according to claim 5, said storage means further comprising peculiar restriction information storage means $[(26)]$ which stores information on a peculiar restriction on a predetermined product in product designing.

15. (Currently Amended) The product design support system according to claim 2, wherein said product is an electric circuit,

said product information stored in said product-information storage means $[(24)]$ includes a parts table of said electric circuit, and

said product image information stored in said product-image-information storage means $[(25)]$ includes a circuit diagram.

16. (Currently Amended) The product design support system that supports a user in designing a product according to claim 1, said processing means comprising:

specification acquisition means [(1)] which acquires specification information designating [[a]] said specification of [[a]] said product to be designed;

compatible-product-information extraction means [(1)] which ~~is connected~~ connects to an external storage device [(2)] including a parts-information storage section [(22)] which stores parts information on parts constituting a product, a parts-image-information storage section [(23)] which stores parts image information on said parts stored in said parts-information storage section [(22)], a product-information storage section [(24)] which stores product information on said ~~product~~ products, said products formed by said parts stored in said parts-information storage section [(22)], and a product-image-information storage section [(25)] which stores product image information on said ~~product~~ products stored in said product-information storage section [(24)], and

extracts from said external storage device [(2)] information on a ~~product~~ said products compatible with said specification designated by said specification information acquired by said specification acquisition means [(1)] and/or information on parts to be constituting elements of said product compatible with said specification; and

information transmission means [(1)] which transmits information extracted by said compatible-product-information extraction means [(1)] to an external user terminal [(4)] of said user,

~~whereby wherein said system collectively manages said~~ information on [[a]] said product to be designed ~~is collectively managed~~ to facilitate designing of said product.

17. (Currently Amended) The product design support system that supports a user in designing a product according to claim 1, said processing means comprising:

compatible-product-information extraction means [(1)] which extracts, from an external storage device [(2)] including a parts-information storage section [(22)] which stores parts information on parts constituting a product, a parts-image-information storage section [(23)] which stores parts image information on said parts stored in said parts-information storage section [(22)], a product-information storage section [(24)] which stores product information on said

~~product~~ products, said products formed by said parts stored in said parts-information storage section ~~[[22]]~~, and a product-image-information storage section ~~[[25]]~~ which stores product image information on said ~~product~~ products stored in said product-information storage section ~~[[24]]~~, said parts information, said product information, said parts image information, and ~~[[their]]~~ said product image information; and

update means ~~[[1]]~~ which updates information stored in said external storage device ~~[[2]]~~ based on said information acquired by said acquisition means ~~[[1]]~~,

~~whereby wherein said system collectively manages said~~ information on ~~[[a]]~~ said product to be designed ~~is collectively managed~~ to facilitate designing of said product.

18. (Currently Amended) The product design support system that supports a user in designing a product according to claim 1, said processing means comprising:

product specifying means ~~[[1]]~~ which allows said user to specify a predetermined product from said products stored in an external product-information storage device ~~[[24]]~~ that stores product information on a product to be formed by parts; and

product-information providing means ~~[[1]]~~ which transmits at least one of said product information stored in said external product-information storage device ~~[[24]]~~ and said product image information stored in an external product-image-information storage device ~~[[25]]~~ that stores product image information of said ~~product~~ products stored in said external product-information storage device ~~[[24]]~~, for ~~[[a]]~~ said product specified by said product specifying means ~~[[1]]~~, to an external user terminal ~~[[4]]~~ of said user to provide said user with said transmitted product-related information,

~~whereby wherein said system collectively manages said~~ information on ~~[[a]]~~ said product to be designed ~~is collectively managed~~ to facilitate designing of said product.

19. (Currently Amended) A product design support method that supports a user in designing a product, said method comprising:

a storage step of storing information about products;

a receiving step of receiving a predetermined specification of a product to be designed; and

an extraction step of selectively extracting said information about said products based on compatibility with said specification of said product to be designed ~~and includes a step (1, 2) of~~

~~collectively managing information on a product to facilitate designing of said product or extracting information for making said product compatible with a predetermined specification.~~

20. (Currently Amended) The product design support method that supports a user in designing a product according to claim 19, ~~comprising:~~

[[a]] said storage step [(2)] including:

a parts-information storage step [(22)] of storing parts information on parts constituting a product,

a parts-image-information storage step [(23)] of storing parts image information on said parts stored at said parts-information storage step [(22)],

a product-information storage step [(24)] of storing product information on ~~said product~~ products, said products formed by said parts stored at said parts-information storage step [(22)], and

a product-image-information storage step [(25)] of storing product image information on ~~said product~~ products stored at said product-information storage step [(24)];

said receiving step including:

a specification acquisition step [(1)] of acquiring specification information designating [[a]] said specification of [[a]] said product to be designed; and

said extraction step including:

a compatible-product-information extraction step [(1)] of extracting information on a ~~product~~ said products compatible with said specification designated by said specification information acquired at said specification acquisition step [(1)] and/or information on parts to be constituting elements of ~~said product~~ products compatible with said specification; [[and]]

said method further comprising:

an information transmission step [(1)] of transmitting information extracted at said compatible-product-information extraction step [(1)] to a user terminal [(4)] of said user,

~~whereby wherein~~ information on [[a]] said product to be designed is collectively managed to facilitate designing of said product.

21. (Currently Amended) The product design support method according to claim 20, wherein [[at]] said compatible-product-information extraction step [(1)], comprises:

selecting product information on ~~a product~~ said products having functions designated by said specification information acquired at said specification acquisition step $[(1)]$ and parts information on parts to be constituting elements of ~~that product are selected~~ said products,

executing simulation to discriminate whether a product which is obtained by replacing constituting elements of said ~~product~~ products indicated by said selected product information is compatible with $[a]$ said specification designated by said specification information or not ~~is executed~~, and

extracting information on ~~a product~~ said products compatible with said specification designated by said specification information and/or information on parts to be constituting elements of said ~~product~~ products compatible with said specification based on results of said simulation is extracted.

22. (Currently Amended) The product design support method that supports a user in designing a product according to claim 19, ~~comprising~~:

$[a]$ said storage step $[(2)]$ including:

a parts-information storage step $[(22)]$ of storing parts information on parts constituting a product,

a parts-image-information storage step $[(23)]$ of storing parts image information on said parts stored at said parts-information storage step $[(22)]$,

a product-information storage step $[(24)]$ of storing product information on said ~~product~~ products, said products formed by said parts stored at said parts-information storage step $[(22)]$, and

a product-image-information storage step $[(25)]$ of storing product image information on said ~~product~~ products stored at said product-information storage step $[(24)]$;

said method further comprising:

an acquisition step $[(1)]$ of acquiring said parts information, said product information, said parts image information, and $[their]$ said product image information; and

an update step $[(1)]$ of updating information stored at said storage step $[(2)]$ based on said information acquired at said acquisition step $[(1)]$,

~~whereby~~ wherein information on ~~[[a]]~~ said product to be designed is collectively managed to facilitate designing of said product.

23. (Currently Amended) The product design support method that supports a user in designing a product according to claim 19, said storage step comprising:

a parts-information storage step ~~[[22]]~~ of storing parts information on parts constituting a product;

a parts-image-information storage step ~~[(23)]~~ of storing parts image information on said parts stored at said parts-information storage step ~~[[22]]~~;

a product-information storage step ~~[(24)]~~ of storing product information on ~~said product~~ products, said products formed by said parts stored at said parts-information storage step ~~[[22]]~~;

a product-image-information storage step ~~[(25)]~~ of storing product image information on ~~said product~~ products stored at said product-information storage step ~~[(24)]~~;

a restriction information storage step ~~[(26)]~~ of storing information on a design restriction in product designing; and

an achievement information storage step ~~[(24)]~~ of storing achievement information on characteristics of ~~said product~~ products stored at said product-information storage step ~~[(24)]~~,

~~whereby~~ wherein information on ~~[[a]]~~ said product to be designed is collectively managed to facilitate designing of said product.

24. (Currently Amended) The product design support method according to claim 23, wherein said achievement information includes physical property values of ~~a-product~~ said products and ~~[[a]]~~ manufacturing ~~[[cost]]~~ costs of ~~said product~~ products.

25. (Currently Amended) The product design support method according to claim 23, further including a simulation step ~~[(1)]~~ of simulating characteristics of ~~a-designed~~ said product to be designed based on said achievement information stored at said achievement information storage step ~~[(24)]~~.

26. (Currently Amended) The product design support method according to claim 25, further including a simulation information transmission step ~~[(1)]~~ of transmitting simulation information on results of simulation done at said simulation step ~~[(1)]~~ to a user terminal ~~[(4)]~~ of said user.

27. (Currently Amended) The product design support method that supports a user in designing a product according to claim 19, said storage step comprising:

a parts-information storage step [(22)] of storing parts information on parts constituting a product[;],

a parts-image-information storage step [(23)] of storing parts image information on said parts stored at said parts-information storage step [(22);],

a product-information storage step [(24)] of storing product information on said ~~product~~ products, said products formed by said parts stored at said parts-information storage step [(22);],
and

a product-image-information storage step [(25)] of storing product image information on said ~~product~~ products stored at said product-information storage step [(24)];

said method further comprising:

a product specifying step [(1)] of allowing said user to specify a predetermined product from said products stored at said product-information storage step [(24)]; and

a product-information providing step [(1)] of transmitting at least one of said product information stored at said product-information storage step [(24)] and said product image information stored at said product-image-information storage step [(25)], for [[a]] said product specified at said product specifying step [(1)], to a user terminal [(4)] of said user to provide said user with said transmitted product-related information,

~~whereby~~ wherein information on [[a]] said product to be designed is collectively managed to facilitate designing of said product.

28. (Currently Amended) The product design support method according to claim 27, wherein said product image information stored at said product-image-information storage step [(25)] is stored in association with said product information stored at said product-information storage step [(24)] and said parts image information stored at said parts-image-information storage step [(23)].

29. (Currently Amended) The product design support method according to claim 27, wherein [[at]] said product specifying step [(1)] comprises:

specifying a plurality of products from said products stored at said product-information storage step ~~[[(24)]]~~ ~~can be specified~~.

30. (Currently Amended) The product design support method according to claim 27, further including:

a parts specifying step ~~[[(4, 1)]]~~ of allowing said user to specify a predetermined part from parts constituting said product specified at said product specifying step ~~[[(1)]]~~; and

a parts-information providing step ~~[[(1)]]~~ of transmitting at least one of said parts information stored at said parts-information storage step ~~[[(22)]]~~ or said parts image information stored at said parts-image-information storage step ~~[[(23)]]~~, for ~~[[a]]~~ said part specified at said parts specifying step ~~[[(4, 1)]]~~, to said user terminal ~~[[(4)]]~~ of said user to provide said user with said transmitted parts-related information.

31. (Currently Amended) The product design support method according to claim 27, said storage step further including a restriction information storage step ~~[[(26)]]~~ of storing information on a design restriction in product designing.

32. (Currently Amended) The product design support method according to claim 23, said storage step further including a peculiar restriction information storage ~~selected~~ step ~~[[(26)]]~~ of storing information on a peculiar restriction on a predetermined product in product designing.

33. (Currently Amended) The product design support method according to claim 20, wherein said product is an electric circuit,

said product information stored at said product-information storage step ~~[[(24)]]~~ includes a parts table of said electric circuit, and

said product image information stored at said product-image-information storage step ~~[[(25)]]~~ includes a circuit diagram.

34. (Currently Amended) A program for allowing a computer to function as a product design support system that supports a user in designing a product, said system comprising:

storage means for storing information about products; and

processing means for receiving a predetermined specification of a product to be designed and for selectively extracting said information about said products from said storage means based on compatibility with said specification of said product to be designed and has a structure (1, 2)

~~which collectively manages information on a product to facilitate designing of said product or extracts information for making said product compatible with a predetermined specification.~~

35. (Currently Amended) The program according to claim 31 for allowing said computer to function as a product design support system that supports a user in designing a product, ~~and comprises:~~

said storage means [[(2)]] including:

parts-information storage means [[(22)]] which stores parts information on parts constituting a product,

parts-image-information storage means [[(23)]] which stores parts image information on said parts stored in said parts-information storage means [[(22)]],

product-information storage means [[(24)]] which stores product information on said ~~product~~ products, said products formed by said parts stored in said parts-information storage means [[(22)]], and

product-image-information storage means [[(25)]] which stores product image information on said ~~product~~ products stored in said product-information storage means [[(24)]]; and

said processing means including:

specification acquisition means [[(1)]] which acquires specification information designating [[a]] said specification of [[a]] said product to be designed[;],

compatible-product-information extraction means [[(1)]] which extracts from said storage means [[(2)]] information on a ~~product~~ said products compatible with said specification designated by said specification information acquired by said specification acquisition means [[(1)]] and/or information on parts to be constituting elements of said ~~product~~ products compatible with said specification[;], and

information transmission means [[(1)]] which transmits information extracted by said compatible-product-information extraction means [[(1)]] to a user terminal [[(4)]] of said user,

~~whereby wherein said system collectively manages~~ information on [[a]] said product to be designed ~~is collectively managed~~ to facilitate designing of said product.

36. (Currently Amended) The program according to claim 31 for allowing said computer to function as a product design support system that supports a user in designing a product, ~~and~~ comprises:

said storage means [(2)] including:

parts-information storage means [(22)] which stores parts information on parts constituting a product,

parts-image-information storage means [(23)] which stores parts image information on said parts stored in said parts-information storage means [(22)],

product-information storage means [(24)] which stores product information on said ~~product~~ products, said products formed by said parts stored in said parts-information storage means [(22)], and

product-image-information storage means [(25)] which stores product image information on said ~~product~~ products stored in said product-information storage means [(24)]; and

said processing means including:

acquisition means [(1)] which acquires said parts information, said product information, said parts image information, and [(their)] said product image information[;], and

update means [(1)] which updates information stored in said storage means [(2)] based on said information acquired by said acquisition means [(1)],

~~whereby wherein said system collectively manages~~ information on [(a)] said product to be designed ~~is collectively managed~~ to facilitate designing of said product.

37. (Currently Amended) The program according to claim 31 for allowing said computer to function as a product design support system that supports a user in designing a product and said storage means comprises:

parts-information storage means [(22)] which stores parts information on parts constituting a product;

parts-image-information storage means [(23)] which stores parts image information on said parts stored in said parts-information storage means [(22)];

product-information storage means [(24)] which stores product information on said ~~product~~ products, said products formed by said parts stored in said parts-information storage means [(22)];

product-image-information storage means [(25)] which stores product image information on said ~~product~~ products stored in said product-information storage means [(24)];

restriction information storage means [(26)] which stores information on a design restriction in product designing; and

achievement information storage means [(24)] which stores achievement information on characteristics of said ~~product~~ products stored in said product-information storage means [(24)],

~~whereby wherein said system collectively manages~~ information on [(a)] said product to be designed ~~is collectively managed~~ to facilitate designing of said product.

38. (Currently Amended) The program according to claim 31 for allowing said computer to function as a product design support system that supports a user in designing a product, ~~and~~ ~~comprises:~~

said storage means comprising:

parts-information storage means [(22)] which stores parts information on parts constituting a product[(;)],

parts-image-information storage means [(23)] which stores parts image information on said parts stored in said parts-information storage means [(22);],

product-information storage means [(24)] which stores product information on said ~~product~~ products, said products formed by said parts stored in said parts-information storage means [(22);], and

product-image-information storage means [(25)] which stores product image information on said ~~product~~ products stored in said product-information storage means [(24)]; and

said processing means comprising:

product specifying means [(1)] which allows said user to specify a predetermined product from said products stored in said product-information storage means [(24);], and

product-information providing means [(1)] which transmits at least one of said product information stored in said product-information storage means [(24)] and said product image

information stored in said product-image-information storage means [(25)], for [(a)] said product specified by said product specifying means [(1)], to a user terminal [(4)] of said user to provide said user with said transmitted product-related information,

~~whereby wherein said system collectively manages~~ information on [(a)] said product to be designed ~~is collectively managed~~ to facilitate designing of said product.